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The study of the growth of cuttings of varietal mulberry in conditions Khorezm region

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Abstract

The article presents data on the laying of bush plantations in farms from hybrids and varietal mulberries by cuttings in the conditions of the Khorezm region, which lead to an improvement in the feed stock of mulberry silkworms and an increase in the yield of mulberry leaf, which will ensure that in the first year of operation of the bush plantations, picking a leaf from 1 ha amounted to 3.5-4 tons, which is sufficient for feeding 3.5-4 boxes of silkworm moths.

Keywords: mulberry, cuttings, roots, plowing, chizing, buds, variety, planting, bush plantation, rooting

Introduction

Qualitative indicators of the feed base of sericulture depend on agricultural activities and the introduction of new high-yielding varieties and hybrids of mulberry. The cultivation of bush plantations by cuttings is of great importance in the transfer of mulberry plantations to high-yielding varieties of mulberry with the sustainable forage qualities of the leaf. However, the agrotechnology of mulberry propagation by cuttings in the conditions of the Khorezm region has been little studied, especially in relation to varietal mulberry. We carried out the experimental work in the Khorezm region, and consisted of the following: annual cuts from the uterine bushes were cut in the second decade of February. The shoots were dug up with soil with a layer of 25-30 cm. In the area intended for planting mulberry cuttings, autumn plowing was performed, spring chiseling, and then planning, after which ridges were prepared for planting cuttings. The row spacing is 4 m, the height of the ridges is 30-35 cm, the

width of their base is 70 cm and the length is -260 m. To lay the bush plantations, cuttings were cut 30-40 cm long, a horizontal planting method was used, for which a groove was made at the top of the ridge 8-10 cm, in which cuttings were placed with an interval of 5-10 cm, and covered with soil. With this planting, the cuttings were in good conditions (humidity, soil temperature, air access), the cuttings were planted on March 11-13. For two days from June 5, watering was carried out at night with uniform wetting of the beds. From the day of planting the mulberry cuttings, they were systematically monitored, noted the timing of swelling of the kidneys on the cuttings, the deployment and appearance of leaflets on the surface of the kidney, as well as the appearance of roots. The first observation showed the friendly development of cuttings, massive swelling and partial unfolding of the kidneys. However, the emergence of shoots of cuttings, i.e. sprouting of shoots to the surface took place more than once (table-1).

Table 1: The timing of emergence of horizontally planted shoots mulberry cuttings.

No.	Clones and Varieties of Mulberry	Landing date	Exit to the surface	Days	The appearance of 3 leaves	Days
1	Katlama x Pioneer	11/III	29/ III	19	4/ IV	24
2	Winter-hardy x Pioneer	12/ III	29/ III	18	5/ IV	25
3	Karshi-1 x Pioneer	13/ III	2/ IV	21	6/ IV	26
4	Uzbek	13/ III	1/ IV	19	7/ IV	25
5	October	13/ III	2/ IV	20	7/ IV	25
6	Pioneer	13/ III	9/ IV	21	8/ IV	26

From table-1 it is seen that the emergence of seedlings on the soil surface by clones and varieties of mulberry is not simultaneous. Dates are aligned at the time of the appearance of 3 leaves and are 25-26 days. 35-40 days after

planting the cuttings, the first roots began to appear, however, their formation in different clones and varieties did not occur simultaneously (table-2)

Table 2: The timing of the appearance of roots in horizontally planted mulberry cuttings

No.	Clones and Varieties of Mulberry	Landing date	Roots appearance date	Number of days
1	Katlama x Pioneer	11/ III	17/ IV	38
2	Karshi-1 x Pioneer	12/ III	20/ IV	40
3	Winter-hardy x Pioneer	13/ III	24/ IV	42
4	Uzbek	13/ III	22/ IV	40
5	October	13/ III	24/ IV	42

The data in table 2 show that the process of root formation within the propagated clones and varieties is not the same. The earliest is the clone of Catlam x Pioneer, then Winter-

hardy x Pioneer, Karshi-1 x Pioneer, of the varieties - Uzbek, October. The rooting of mulberry cuttings is shown in table-3.

Table 3: The rooting of mulberry cuttings depending from clone and variety of mulberry.

№	Clones and Varieties of Mulberry	Planted cuttings pcs	Rooted		Leaf crop from 1 ha
			PCS	Percent (%)	
1	Katlama x Pioneer	2500	2125	85,0	3,7
2	Winter-hardy x Pioneer	2500	2250	90,0	4,2
3	Karshi-1 x Pioneer	2500	1750	70,0	3,9
4	Uzbek (not ringed)	2000	120	60,0	4,8
5	October (not ringed)	200	111	55,5	4,5
6	Seedlings grown from seeds (control)	1200	1160	96,6	-

The rooting rate of cuttings for clones in the range of 70-90% was obtained. The best rooting was in the Winter-hardy x Pioneer clones (90%) and Katlam x Pioneer clones (85.0%). The rooting rate of non-ringed cuttings by mulberry varieties was 55.5-60%. During the growing season, observations were made on the dynamics of the development of plantation bushes depending on the clone and mulberry variety. It was revealed that 3-4 shoots develop on one shank: the length of annual shoots is 190-235 cm, and the total length of shoots is 5.7-7.05 m. The diameter of shoots at the base is 12-16 mm. In the control, the shoot length is 220 cm, the total is 2.2 m, the shoot diameter is 1.5 cm, i.e. in seed bush plants, growth indicators of vegetative organs are less important than in plants grown from cuttings.

At the same time, the powerful development of shoots along the length and diameter of the base in root plants shows that it is not advisable to contain them further under conditions of free growth. It is possible to begin operation of bush plantings the next year after planting cuttings, which reduces the operational period in comparison with seed bush plants for one to two years.

Thus, the laying of fodder, bush plantations from ringed mulberry cuttings to a permanent place of growth of newly developed areas of the Khorezm region is promising. The rooting rate of ringed cuttings, depending on hybrid combinations of mulberry, amounted to 70-90%, varietal non-ringed cuttings of 55.5-60%. The height of the annual shoots of mulberry root plants reached 190-235 cm, the average diameter at the base of the shoots was 1.2-1.6 cm. In the first year of operation of bush plantations, the collection of leaves from 1 ha was 3.5-4 tons, which is sufficient for Feeding of 3.5-4 boxes of silkworm eggs

References

1. Рахмонбердиев К. «Биологические основы укоренного создания кормового фонда шелководства путем черенкования шелковицы». Ташкент. Фан. 1980 г.
2. Фёдоров. «Тутоводство». М.Гос. издат с/х

литературы. 1954 г.

3. Рахмонбердиев.К. «Закладка кормовых кустовых плантаций окольцованными черенками шелковицы в условиях Каршинский степи». Журнал «Шелк» № 4. Ташкент. 1992 г.
4. Зинкина. Е. «Сорта шелковицы. Повышения продуктивности кормовой базы шелководства». Ташкент. 1970 г.
5. Хакимов.Х. «Побега образование основных сортов шелковица. Пути повышения продуктивности шелковица и тутового шелкопряда» Ташкент. 1986 г.